

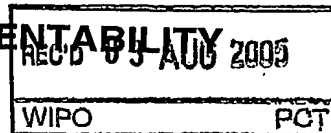
# PATENT COOPERATION TREATY


## PCT

### INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)



Applicant's or agent's file reference P206264PCT		<b>FOR FURTHER ACTION</b>		See Form PCT/IPEA/416
International application No. PCT/NL2004/000561		International filing date (day/month/year) 10.08.2004	Priority date (day/month/year) 11.08.2003	
International Patent Classification (IPC) or national classification and IPC B66D1/30				
Applicant NOVATUG B.V. et al.				
<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:</p> <p><input checked="" type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input checked="" type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand  13.06.2005		Date of completion of this report  02.08.2005		
Name and mailing address of the international preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer  Ferrien, Y  Telephone No. +49 89 2399-7481		



**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/NL2004/000561

**Box No. I Basis of the report**

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:

- ☐ international search (under Rules 12.3 and 23.1(b))
- ☐ publication of the international application (under Rule 12.4)
- ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements\*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

**Description, Pages**

1-4 as originally filed

**Claims, Numbers**

1-10 received on 13.06.2005 with letter of 13.06.2005

**Drawings, Sheets**

1/3-3/3 as originally filed

☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages
- ☐ the claims, Nos.
- ☐ the drawings, sheets/figs
- ☐ the sequence listing (*specify*):
- ☐ any table(s) related to sequence listing (*specify*):

\* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT  
ON PATENTABILITY**

International application No.  
PCT/NL2004/000561

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**Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	
Inventive step (IS)	Yes: Claims	1-10
	No: Claims	
Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations (Rule 70.7):

**see separate sheet**

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**Box No. VIII Certain observations on the international application**

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The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

**see separate sheet**

**Re Item V**

**Reasoned statement with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**

**1. Independent claim 1:**

**1.1. Article 33(2) PCT:**

The document D1: DE 31 49 589 A is regarded as being the closest prior art to the subject-matter of claim 1, and shows a winch system comprising a retaining device for a cable, comprising a drum 1 for containing at least two windings of the cable on the casing face thereof, said drum being mounted on bearings such that it can rotate, whereby the distance from the casing face of said drum 1 to the axis of rotation of said bearings varies around the periphery of said drum.

The subject-matter of claim 1 differs from this known winch system in that said winch system comprises a cable storage having a winding/unwinding drum separate from said retaining device.

The subject-matter of claim 1 is therefore new (Article 33(2) PCT).

**1.2. Article 33(3) PCT:**

The problem to be solved by the present invention may be regarded as being to provide a winch system with a compact cable retaining device which can be easily operated at different speeds.

The solution to this problem proposed in claim 1 of the present application is considered as involving an inventive step (Article 33(3) PCT) for the following reasons:

The cable is stored in D1 on a central cylindrical part 2 of the drum. The length of the storage part of the drum can be increased in case of an increased need for cable storage capacity (see Fig.8).

In order to solve the above-mentioned problem, the other cited prior art merely foresees to provide a further drum of different diameters on the same axis (see US-A-1 621 714 or also WO 01/30650 A, Fig.5).

A winch system, whereby the distance from the casing face of the drum to the axis of rotation of the bearings varies around the periphery of said drum and comprising a cable storage having a winding/unwinding drum separate from said retaining device, is not shown or suggested by the available prior art.

The subject-matter of independent claim 1 is therefore considered to involve an inventive step (Article 33(3) PCT).

2. Dependent claims 2-10:

Claims 2-10 are dependent on claim 1 and as such also meet the requirements of the PCT with respect to novelty and inventive step (Article 33(2)(3) PCT).

**Re Item VIII**

**Certain observations on the international application**

The embodiments of the invention shown in figures 1 and 2 and the corresponding parts of the description do not relate to a winch system comprising a cable storage having a winding/unwinding drum separate from the retaining device and therefore do not fall within the scope of the claims. This inconsistency between the claims and the description leads to doubt concerning the matter for which protection is sought, thereby rendering the claims unclear, Article 6 PCT.

**CLAIMS**

1. Winch system comprising a retaining device (1) for a cable (4), comprising a drum (2) for containing at least two windings of the cable on the casing face (13) thereof, said drum being mounted on bearings such that it can rotate, characterised in that the distance from the casing face of said drum to the axis of rotation (12) of said bearings varies around the periphery of said drum, **characterised in that** said winch system comprises a cable storage having a winding/unwinding drum (7) separate from said retaining device.
2. Winch system according to Claim 1, wherein at least one location on the periphery of the casing face is essentially coincident with the axis of rotation of said bearing.
3. Winch system according to one of the preceding claims, wherein said casing face is circular cylindrical.
4. Winch system according to one of the preceding claims, wherein the drum is driven by a motor (10).
5. Winch system according to one of the preceding claims, wherein grooves (3) for accommodating the cable have been made in said casing face.
6. Winch system according to one of the preceding claims wherein the surface of the casing face is provided with means to obtain more friction between the casing face and the cable.
7. Winch system according to one of the preceding claims, wherein said drum is designed to accommodate a stock of cable.
8. Winch system according to one of the preceding claims comprising braking means.

9. Tug having a winch device with a winch system according to one of Claims 1-7, wherein the cable release point/pick-up point with respect to said boat can be adjusted over 360° in an essentially horizontal plane.

10. Tug according to Claim 9, wherein the axis of said drum in the unloaded state is essentially vertical.